DOCUMENT RESUME

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TITLE IEA Six-Subject Survey Instruments: Science Teacher Questionnaires.

INSTITUTION International Association for the Evaluation of Educational Achievement, Stockholm (Sweden).

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NOTE 17p.; For related documents, see TM 004 138-163 and ED 034 290 and 300

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DESCRIPTORS *Academic Achievement; Background; *Comparative Education; *Cross Cultural Studies; *Questionnaires; *Science Teachers; Teacher Attitudes

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ABSTRACT

In 1965 the International Association for the Evaluation of Educational Achievement (IEA) inaugurated a cross-national survey of achievement in six subjects: Science, Reading Comprehension, Literature, English as a Foreign Language, French as a Foreign Language, and Civic Education. The overall aim of the project was to use international tests in order to relate student achievement and attitudes to instructional, social, and economic factors, and from the results to establish generalizations of value to policy makers worldwide. Contained here are two questionnaires for Science teachers measuring teacher background, attitudes, and how they regard the job of Science teaching. Answer keys and statistical data can be found in ED 081 639. (RC)

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The basic procedures to be followed in the main testing of the IEA Six-Subject Survey were set out in a series of manuals:

Stage 2	IEA/M1	Manual for National Centers
	IEA/M2	Manual for School Coordinators
	IEA/M3	Manual for Test Administrators
Stage 3	IEA/M1/Stage 3	Manual for National Centers
	IEA/M2/Stage 3	Manual for School Coordinators
	IEA/M3/Stage 3	Manual for Test Administrators

These manuals are available from ERIC Clearinghouse.

The following extracts from these manuals have been appended to this particular IEA instrument to provide researchers with the minimum necessary test instruction information (e.g., such things as the instructions on the practice items and the warnings concerning the amount of time left for the test have been omitted here). For full details, please consult the appropriate manuals.

The Data Bank Instrument Number which appears below is a new number, assigned since these instruments were administered for the purpose of easily linking items in the instruments with the resultant variables in the Data Bank holdings. Each such variable is named in the codebook using the new instrument number and (usually)) the number of the item within the instrument from which the variable is derived. The key to the new instrument numbers is as follows:

1: Type of Instrument

E = Examination (student)
Q = Questionnaire (student)
T = Teacher questionnaire
S = School questionnaire

2: Student Population

1 = I	6 = II and IV
2 = II	7 = I, II and IV
3 = III	8 = I and IV
4 = IV	9 = IV Specialist
5 = I and II	N = NA: Teacher or School questionnaire

3: Subject

S = Science
R = Reading Comprehension
L = Literature
M = Mother Tongue (Reading Comprehension and Literature)
E = English as a Foreign Language
F = French as a Foreign Language
C = Civic Education
2 = All Stage 2 Subjects
3 = All Stage 3 Subjects
5 = All Stage 2 and Stage 3 Subjects

4-5: Instrument Within Type

One or two characters used when necessary to uniquely identify each instrument when there is more than one instrument of the same type.

Instrument Name Teacher Questionnaire - Science

Data Bank Instrument Number TNSG

TM004140

TTTG

TEACHER CHARACTERISTICS

NEW CITY RESEARCH

SCIENCE

The answers to these questions should be recorded in section B9 of the enclosed answer card. Do not answer these questions if you do not teach science.

Indicate how many semesters of full-time training you have completed at a post-secondary school institution. (Note: a full academic year is here counted as equivalent to two semesters.)

1. In Physics:

   a. 0 semesters b. 1 c. 2 or 3

   d. 4 or 5 e. 6 or more

2. In Chemistry:

   a. 0 semesters b. 1 c. 2 or 3

   d. 4 or 5 e. 6 or more

3. In Biology (including botany and zoology):

   a. 0 semesters b. 1 c. 2 or 3

   d. 4 or 5 e. 6 or more

4. In Geology:

   a. 0 semesters b. 1 c. 2 or 3

   d. 4 or 5 e. 6 or more

5. In other Physical and Natural Sciences:

   a. 0 semesters b. 1 c. 2 or 3

   d. 4 or 5 e. 6 or more

Indicate how many weeks (full-time equivalent) in-service teacher training you have received during the last 5 years. Please include also evening courses and other short in-service courses, counting 6 hours equal to one full-time day and 5 days equal to one full-time week.

6. In Physics:

   a. 0 weeks b. 1 or 2 weeks c. 3 or 4 weeks

   d. 5 or 6 weeks e. 7 or more weeks

7. In Chemistry:

   a. 0 weeks b. 1 or 2 weeks c. 3 or 4 weeks

   d. 5 or 6 weeks e. 7 or more weeks

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Indicate how many weeks of instruction (academic semesters) are taken relevant during the last five years.

9. In Biology (including Botany and Zoology)

a. 0 weeks b. [illegible] weeks c. [illegible] weeks

d. [illegible] weeks e. [illegible]

10. In Geology

a. 0 weeks b. [illegible] weeks c. [illegible] weeks

d. [illegible] weeks e. [illegible]

11. In other Physical or Natural Sciences

a. 0 weeks b. [illegible] weeks c. [illegible] weeks

d. [illegible] weeks e. [illegible]

12. Have you taken part in any science curriculum reform projects (such as BSCS, PSSC, Harvard Project Physics, Chem Study, etc.)?

a. Yes

b. No

13. Do you feel that there are restrictions on your freedom to adapt the teaching syllabus to suit your individual style and the needs of your students? If so, where does the restriction lie.

a. I feel no restriction

b. authorities within the school

c. authorities outside the school

14. Do you take part in voluntary backgrounds and [illegible] beyond your teaching?

a. Yes, very seriously

b. Yes, slightly

c. No, not at all

[illegible]

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Teacher Questionnaires

The School Coordinator is responsible for passing on the Teacher Envelopes to the appropriate teachers and to do everything possible to ensure their return, completed. (Each teacher is expected to fill in only two or three of the parts of the questionnaire. The parts which are appropriate are explained on the questionnaires themselves). Teachers should be requested to insert their completed answer cards into the Teacher Return Envelope which can then be sealed.

The School Coordinator should collect the Teacher Return Envelopes for return to the National Center.

SCIENCE TEACHER QUESTIONNAIRE

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VIEWS ON THE TEACHING OF SCIENCE

VIEWS ON PRACTICAL WORK

Below are given 10 statements on the teaching of science. We are interested in obtaining information on how teachers regard the job of science teaching, will you therefore indicate against each item the extent to which you agree or disagree with each statement. Please answer by blackening in the appropriate space on your answer card.

1. Open-ended investigations are possible, and desirable, from the very beginning of science education.

   A. Disagree strongly.
   B. Disagree.
   C. No opinion.
   D. Agree.
   E. Agree strongly.

2. Practical experience is not essential for the acquisition of scientific knowledge.

   A. Disagree strongly.
   B. Disagree.
   C. No opinion.
   D. Agree.
   E. Agree strongly.

3. There is so much to learn about science nowadays that it is better not to take up time with practical work.

   A. Disagree strongly.
   B. Disagree.
   C. No opinion.
   D. Agree.
   E. Agree strongly,

4. A pupil may forget all he learned at school about the facts and principles of science but the experience he gains in carrying out his own practical investigations will last him in good stead for ever.

   A. Disagree strongly.
   B. Disagree.
   C. No opinion.
   D. Agree.
   E. Agree strongly.

5. A teacher's time is better employed in giving lectures and demonstrations than in preparing for laboratory work.

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.

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6. The difficulties of providing opportunities for practical work of an investigational nature are so great that teachers should be advised not to undertake such work.

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.

7. A pupil's science education is not complete unless he has had opportunities for carrying out investigations on his own.

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.

8. However hard-pressed a science teacher is, the top priority in his work should be to provide opportunities for his pupils to carry out their own original investigations.

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.

9. At least half a pupil's time in science should be spent on practical work preferably in a laboratory or in the field,

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.

10. Pupils gain little of value from carrying out their own investigations.

A. Disagree strongly.
B. Disagree.
C. No opinion.
D. Agree.
E. Agree strongly.